

CLAIMS

1. A method of finding the prediction direction of a current image block during intraframe image coding, the method calculating virtual blocks associated with said current block in given prediction directions, which method is characterized in that it comprises the following steps:
 - selecting two initial prediction directions (E, S) from the given prediction directions,
 - calculating virtual blocks associated with said initial prediction directions (E, S),
 - comparing said virtual blocks with the current block and selecting the initial prediction direction (E) that minimizes the difference between the associated virtual block and the current block, which prediction direction is then called the first main direction,
 - calculating virtual blocks associated with the prediction directions (ENE, ESE) immediately adjacent to said first main direction (E),
 - comparing the virtual blocks associated with the first main direction (E) and said immediately adjacent directions (ENE, ESE) with the current block to determine the best prediction direction, which is the prediction direction that minimizes the difference between the associated virtual block and the current block,
 - if said best prediction direction is said first main direction (E) or one direction (ENE) of the immediately adjacent directions if it is situated at one extremity of the set of prediction directions, deciding this best direction is the required prediction direction, otherwise,
 - selecting the prediction direction (ESE) that minimizes the difference between the associated virtual block and the current block, which is then called the second main direction,
 - calculating the virtual block associated with the prediction direction (SE) other than the first main

direction (E) that is immediately adjacent to the second main direction (ESE),

- 5 comparing the virtual blocks associated with the second main prediction direction (ESE) and with said immediately adjacent direction (SE) with the current block to determine the best prediction direction, which is the prediction direction that minimizes the difference between the associated virtual block and the current block,
- 10 if said best prediction direction is said second main direction (ESE) or the immediately adjacent direction (SE) if it is situated at one extremity of the set of prediction directions, deciding that best direction is the required prediction direction,
- 15 otherwise,
- continuing the process iteratively until the required prediction direction is found.

2. A method according to claim 1, characterized in that

20 said iteration is stopped if the best current prediction direction (SE) is adjacent to a direction (SSE) immediately adjacent to the initial direction (S) not retained as the first main direction.

25 3. A method according to claim 1 or claim 2, characterized in that said initial prediction directions are vertical and horizontal directions as defined in the H.264/MPEG-4 AVC standard.

30 4. A software module for a coding device containing software instructions for commanding the execution by the coding device of the steps of the method according to any one of claims 1 to 3.

35 5. A coding device comprising the software module according to claim 4.